WDTF 2017 Industry Sector Grant Application



Business/Entity Legal Name	College of Eastern Idaho
"Doing business as" entity name	
Federal Tax ID Number	
Business street address	1600 S 25 th E
РО Вох	
City, State, zip code	Idaho Falls, ID 83404
Business website	www.cei.edu

WHO TO CONTACT ABOUT THIS APPLICATION

Name of contact person	Michelle M. Holt
Job Title	Executive Director, Workforce Training & Community Education
Mailing address if different than above	
Email Address	michelle.holt@cei.edu
Telephone number	(208) 535-5381

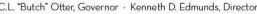
INDUSTRY CONSORTIUM

The applicant must be a business entity representing a consortium of at least three industry partners with a similar occupational training need; all three partners must meet current WDTF company requirements which can be viewed at:

http://labor.idaho.gov/dnn/idl/Businesses/TrainingResources/WorkforceDevelopmentTrainingFund.aspx

Industry Partner Business Name	Physical location in Idaho (complete address)	Verified by IDOL (IDOL USE ONLY)
College of Eastern Idaho	1600 S. 25th E, Idaho Falls, ID 83404	
Premier Technology	1858 W Bridge Rd, Blackfoot, ID 83221	
American Fabrication	2517 W Omni Dr, Idaho Falls, ID 83402	
Idaho Steel Products	255 E Anderson St, Idaho Falls, ID 83401	
Cives Steel Company	10059 N Yellowstone Hwy, Idaho Falls, ID 83401	
Idaho National Laboratory	2525 Fremont Ave, Idaho Falls, ID 83402	
Spudnik Equipment Company LLC	584 West 100 North, Blackfoot, ID 83221	







An Equal Opportunity Employer and Service Provider. Reasonable accommodations are available upon request. Dial 711 for Idaho Relay Service.

'I gaps

and research of training options, to develop a targeted occupation labor market analysis that identifies the current and future projected gaps in employment for the industry, and to select a training solution to alleviate identified skill gaps (may be selection of a public/private post-secondary training provider, or may be development of work-based training components, or a combination of the two).

Provide the name of the Department of Labor staff person you are working with and a synopsis of the partnership with the Department of Labor to identify current and projected skill gaps in employment for the industry and the research completed to identify training options.

CEI has been working with Heather Nunamaker, Regional Training Coordinator for the College of Eastern Idaho, and Matthew Thomsen, the Business Partnership Manager at the Idaho Workforce Development Council, to determine the proper grant requirements. CEI has also been working with Hope Morrow, the Regional Economist for the Labor and Public Affairs Bureau at the Department of Labor, to quantify the skills gap in the region.

The College of Eastern Idaho was contacted by a large welding company in the area because of their desperate need for welders. In Idaho, there are nearly 3,000 welding type jobs. When the college reviewed a survey of job openings in the area, over 15 posted job vacancies were found. Each job posting could represent multiple jobs. For example, an employer, like Premier, needs 50 welders immediately, but they only list one job posting. The Department of Labor shows there are over 750 welding type jobs in Eastern Idaho, and the field is growing.

"The welding field has seen rapid growth throughout the state of Idaho over the past five years. Over 20% growth for these jobs, compared to our neighboring states that reflect 11-12% growth in the same period. Region Six, which includes the Idaho Falls MSA, grew by 22% over the last five years. Region Five, including Pocatello's MSA, saw just under 16% growth in the welding fields."

Hope Morrow, Regional Economist, Idaho Department of Labor

The college then contacted 6 companies in the industry. These industry partners represent over 50% of the current welders in the East and Southeastern area. When asked if the need was a dire as the numbers indicated, the response from each employer was a resounding affirmation that they need additional welders to fulfill their current projects. The employers continued to explain that this was the tip of the iceberg. Many of these company's welders will be retiring in the next 10 years and their current welders need additional training to replace the knowledge vacuum left from these advanced welders retiring.

Painfully aware of the inability to hire advanced welders, several of these large welding companies described attempting to create training programs on site. These trainings are not standardized, may not follow American Welding Society procedures, and are not documented. The lack of verifiable documentation handcuffs the welders to their current employer, due to pay reduction when moving to a new employer. This happens because potential employers are hesitant to hire welders into advanced positions because of the exorbitant cost to verify all of the advanced skills. Consequently, employers hire advanced welders into entry level pay positions with the "promise" of increased pay, when the advanced skills are demonstrated on the job.

Concerned with the wave of welding needs coming, we contacted the high school programs in the area to make sure they were training students to fill this vast void. Unfortunately, the 6 high schools we reached out to indicated that the welding standards they begin to teach are not completed by the time the students graduate. Additionally, none of the documented competencies learned in high school transfer into college. For example, a high school student that is passionate about welding will not be able to complete the Idaho Welding Technology Program Standards in high school due to the limited amount of class time. When these experienced students apply to a college welding program, none of their documented training reduces their required classes. These experienced students will start at the same entry level classes as a student with no experience. This means the passion and experience is ignored until the less competent students are "caught up."

The Eastern and South Eastern regions show dogged determination in getting trained in welding. Currently, the College of Eastern Idaho has a backlog of students waiting to get into the two-year Associates of Applied Science in welding. While students wait on backlog for a slot to open during Fall semester to join the program, many enrolled students do not complete the program. The demand for trained welders is so strong that many welding students are offered jobs without being required to finish the program. Additionally, the current welding program is scheduled for Monday through Friday, during regular working hours. A person who is currently employed does not have the opportunity to join a welding program unless their occupation is in the evenings and on weekends.

The industry is clamoring for new welders and is desperate to increase the skills of existing welders. The high schools are unable to fully prepare a student for a welding career and the college is doing everything it can to help increase trained welders in the area.

Identify the specific occupational skill gaps of the industry consortium that this proposal will address.

The College of Eastern Idaho has met with industry partners from sector 5 and 6 and presented the proposed solution of a welding badge program based on ability, not required hours. The industry partners are ecstatic with how the program addresses their specific occupational skill gaps. Here are some examples of how customizable this solution will be:

Idaho Steel has expressed their need to send employees and hire new welders that have the following welding badges:

- 1. APPLY GAS TUNGSTEN ARC WELDING (GTAW) TECHNIQUES
- 2. APPLY FUNDAMENTAL PRINT READING, MEASUREMENT AND LAYOUT/FIT-UP TECHNIQUES
- 3. APPLY FABRICATION FUNDAMENTALS
- 4. STAINLESS STEEL FINISHING

American Fabrication has expressed their need to send employees and hire new welders that have the following welding badges:

- 1. APPLY GAS METAL ARC WELDING (GMAW-S, GMAW) TECHNIQUES
- 2. APPLY FLUX CORED ARC WELDING (FCAW-G) TECHNIQUE
- 3. APPLY GAS TUNGSTEN ARC WELDING (GTAW) TECHNIQUES

American Fabrication said there were 5 other badges that they'd be very interested in. They also said that after a few years the advanced badges would be very beneficial.

Spudnik has expressed their need to send all their welders and start actively recruit from the SkillStack database. Spudnik desperately needs the following welding badges:

- 1. APPLY FUNDAMENTAL PRINT READING, MEASUREMENT AND LAYOUT/FIT-UP TECHNIQUES
- 2. IDENTIFY PROPERTIES OF METALS
- 3. APPLY GAS METAL ARC WELDING (GMAW-S, GMAW) TECHNIQUES
- 4. APPLY FABRICATION FUNDAMENTALS

Premier needed this training immediately and contracted with our college for the TIG badge to be done on site. This is helping with their immediate need, but they are more excited to have the longer term solution of sending their employees for badges. Spudnik and American Fabrication said they would be very interested in any person who had several badges. All of the industry partners commented that completed badges are seen as demonstrated skills from a person who has showed initiative to better their skills. This program will put skilled workers into jobs faster, which benefits the sector 5 and 6 welding industry.

This model could be applied across the state of Idaho. This program demonstrates that residents who want to learn skills, which are tied directly to industry needs, are not required to spend a specified number of hours in training. Residents need to demonstrate the skills the industry is looking for. This documented skills process will be a part of a system that covers the state of Idaho. Each college or workforce development department could implement this system and help their regions.

TRAINING DETAILS

Proposed training must alleviate the skills gap(s) identified in the labor market analysis under "Partnership with Department of Labor", above, which documents the necessity of the skill(s) for specific economic opportunities and industrial expansion initiatives, and/or the necessity to upgrade the skills of new job candidates or enhancing the skills of incumbent workers leading to a wage gain or promotion as a direct result of the training.

Training may include work-based learning opportunities or classroom training that addresses the skill gaps identified by the industry consortium

Describe the training that will be provided with these grant resources.

What specific skills training will be provided? Include any planned enhancements that will be made to current training.

The College will offer on Saturdays from 8-5, a six week course allowing the student to select which badge/skill they want to work on. High school students and welders that are looking to learn additional techniques will be able to take their existing welding documentation into this Saturday training and present to the instructor what badge they want to complete. Those wanting to join the welding profession, or employees from other industries can continue their work Monday through Friday and still come in on Saturday to either increase their skills or complete badges through competency/performance testing, which employers have verified are needed to hire those interested in the welding field.

The first five weeks of training will be done in person, with a combination of classroom presentations and hands on welding practice. The classroom presentation helps students understand the concepts and science of welding. This also aids in troubleshooting problems they may have in the field and during tests. The hands-on welding

practice focuses on increasing hand eye coordination and muscle control through a series of exercises.

What makes this program different is the documentation of individual competency. This competency is not tied to hours or classroom time. Individual's progression is based on their prior experience, aptitude and dedication. The training is focused on progressing the individual to a completed welding badge.

This non-credit welding badge program has 10 standards that align with the Idaho Welding Technology Program content standards, which high schools expose students to but are not completed. These standards cover the basic skills and methods of welding. This program also includes an 11th standard that covers advanced welding skills. The 2 year AAS program at the college does not document all the skills contained in the SkillStack badge system and does not cover advanced techniques.

The advanced skills portion of the welding standards were developed based on industry partner's needs. These skills are the not being taught in any other program. They represent what employers look for in advanced welders. Learning these advanced skills will help incumbent welders provide documentation of their ability to perform the advanced techniques that employers want, but currently do not have an efficient way to test.

In the 6th week, students will complete an assessment of skills that will be done through performance tests. Students will be asked to perform actions or create finished projects which will demonstrate the skill competency and earn them the corresponding badge. The testing will be completed by an American Welding Society's Certified Welding Inspector. Additionally, testing, without training, will be available to schedule on Tuesday and Thursday evenings.

The curriculum and training requirements for each badge is based on content standards. The content standards may have more than one badge assigned to it. For example, the first content standard below labeled, "Identify Lab Organization and Safety Procedures" contains three SkillStack badges. The 11th standard has 5 separate badges and is expected to grow as more advanced skills documentation is requested. The following information shows what welding information this program will train and test on. Here is a summary of the 11 standards that will be available:

- CONTENT STANDARD 1.0: IDENTIFY LAB ORGANIZATION AND SAFETY PROCEDURES
 - Performance Standard 1.1: Demonstrate
 General Lab Safety Rules and Procedures
 - Performance Standard 1.2: Identify and Utilize Hand Tools
 - Performance Standard 1.3: Identify and Utilize Power Tools and Equipment
- CONTENT STANDARD 2.0: APPLY FUNDAMENTAL PRINT READING, MEASUREMENT AND LAYOUT/FIT-UP TECHNIQUES
 - Performance Standard 2.1: Demonstrate
 Print Reading and Sketching Practices
 - Performance Standard 2.2: Demonstrate
 Measuring and Scaling Techniques
 - Performance Standards 2.3: Utilize Layout Principles and Practices
 - Performance Standards 2.4: Demonstrate
 Preparation and Fit-Up Practices
- CONTENT STANDARD 3.0: IDENTIFY PROPERTIES OF METALS
 - Performance Standard 3.1: Identify
 Material Properties and Science
 - Performance Standard 3.2: Identify Filler
 Metals
- CONTENT STANDARD 4.0: APPLY SHIELDED METAL ARC WELDING (SMAW) TECHNIQUES
 - Performance Standard 4.1: Safety
 Procedures
 - Performance Standard 4.2: Produce Welds using SMAW on Carbon Steel
- CONTENT STANDARD 5.0: APPLY GAS METAL ARC WELDING (GMAW-S, GMAW) TECHNIQUES
 - Performance Standard 5.1: Utilize Safety
 Procedures
 - Performance Standard 5.2: Produce Welds using GMAW-S on Carbon Steel
- CONTENT STANDARD 6.0: APPLY FLUX CORED ARC WELDING (FCAW-G) TECHNIQUE
 - Performance Standard 6.1: Utilize Safety
 Procedures
 - Performance Standard: 6.2: Produce
 Welds using FCAW-G on Carbon Steel
- CONTENT STANDARD 7.0: APPLY GAS TUNGSTEN ARC WELDING (GTAW) TECHNIQUES
 - Performance Standard 7.1: Utilize Safety
 Procedures

- Performance Standard 7.2: Produce Welds using GTAW on Carbon Steel
- Performance Standard 7.3: Produce Welds using GTAW on Aluminum
- CONTENT STANDARD 8.0: APPLY THERMAL CUTTING PROCESSES
 - Performance Standard 8.1: Demonstrate
 Oxy-Fuel Gas Cutting (OFC)
 - Performance Standard 8.2: Demonstrate
 Plasma Arc Cutting (PAC) on Carbon Steel
 and Aluminum
 - Performance Standard 8.3: Demonstrate
 Manual Air Carbon Arc Cutting (CAC-A)
- CONTENT STANDARD 9.0: IDENTIFY WELDING CODES, INSPECTIONS, AND TESTING PRINCIPLES
 - Performance Standard 9.1: Identify Welding Codes, Qualifications and Certifications
 - Performance Standard 9.2: Demonstrate
 Welding Inspection and Testing Principles
- CONTENT STANDARD 10.0: APPLY FABRICATION FUNDAMENTALS
 - Performance Standard 10.1: Utilize Base
 Metal Preparation Fundamentals
 - Performance Standard 10.2: Demonstrate Fabrication Techniques
- CONTENT STANDARD 11.0: ADVANCED TECHNIQUES
 - Performance Standard 11.1: Follow Advanced Welding Procedures
 - Performance Standard 11.2: Exotic
 Material Techniques
 - Performance Standard 11.3: Stainless
 Steel Finishing
 - Performance Standard 11.4: Advanced
 Pipefitting
 - o Performance Standard 11.5: Consistency

The complete welding content and badge standards are included in Appendix A.

The welding instructor will manage 10 booths each Saturday. Since the program is designed to allow each student to progress based on their own competency, and the content standards do not need to be completed in order, each booth could be working on a different standard. The Saturday training sessions will focus on the skills needed to complete the badge the student is focused on. The student may practice on Saturday, at their high school or on the job. The Saturdays will be available in 6

weeks blocks. During those 5 weeks students will be learning the badge required skills by classroom and shop time. During the 6th Saturday, when the student is ready, they will be tested. Additional evening testing times could be scheduled. If a student wants to forgo training time and just wants to test for a badge, we can schedule time during Saturday or on Tuesday and Thursday evenings.

Employers will be able to send their employees for training on the specific skills needed for their work. The skills/competencies are documented, and the employee does not need to spend time training on areas that are not relevant to their situation.

Additionally, Human Resource departments will have a searchable list of people who have demonstrated abilities in the desired skills. This will dramatically increase the supply of qualified welders for current positions because the employer may only need an entry level welder with a few skills. This program allows students to focus on those few skills and get started in the industry.

Who will provide the training?

(Identify the entity that will provide training, the qualifications of the trainer(s), and location of training site.)

The college of Eastern Idaho's Workforce Development department has part time welding instructors that are Certified Welding Inspectors through the American Welding Society. These instructors are used for contract trainings and evening non-credit classes. The college will use this pool of instructors to teach the high school students, incumbent workers and those already in industry that are the focus of this program. These instructors will provide classroom and "hood" training during the Saturday sessions, as well as badge testing. The curriculum being developed will cover the training and testing rubric for the badges.

Where will the training be provided?

The trainings will be completed on the campus of the college of eastern Idaho. The welding department is not being used on Saturdays and some evenings, so this will not affect the existing welding degree program. Utilizing this schedule allows the college to dramatically increase the number of welding students being trained. Additional trainings, at industry partner locations, could be scheduled allowing for a "boot camp" process. The company could work with the Workforce Development department to schedule a training to go on site and train for 40-50 hours and then administer the test to the students. This type of training could benefit outlying and rural areas, provided we have access to a facility in the area.

How many training sessions will be held during the 24 months of the grant?

The focus of this program is completed badges. We will be using the content standards as options for students and employers to choose from. Helping students accomplish as many badges as possible, and as quick as possible, allows them to find job placements in a shorter time.

The program is intended to run year-round and does not align with the academic calendar of Spring, Summer and Fall sessions. Training sessions will be on Saturdays, from 9am to 5pm, in week blocks. Testing will be held on the final Saturday or could be scheduled in the evening. There will be observances for holidays and campus closures. Using 6 weeks blocks we plan to have 9 sessions available per year. Each session has 10 booths available, making 90 sessions per year or 180 for the two-year grant. A detailed calendar of the training sessions is attached in Appendix B

SELECTION

Who will receive training from this project, (examples – general public or current employees)?

Because this program is offered at non-traditional times and does not follow a sequential progression to employment, there are many groups that will benefit from this training.

Industry employees can receive advanced training, while on the job. Employers can provide the funds to have their employees learn a new skill that will directly benefit the company. Employees that want to learn additional skills, which may not be utilized at their company, can learn while still working for the employer.

Workers looking to learn a new trade can sign up with no prerequisites or testing to inhibit them. This program may help unemployed workers because of the non-traditional hours allowing them to look for work while receiving training to make them more employable.

Public High School students are already working on the content standards, but do not receive badges for the completion of their work. This can allow them to test and receive badges that the industry will recognize. Student could also take this training while in high school and increase their employability, while still going to school.

TRAINING SCHEDULE

Provide a quarterly training break-out for year one and a total for year two to show number of planned NEW participants entering training and number of individuals exiting training for each course of training, for each quarter, as shown in example below.

Type of Training/Course Title	QTR 1 Enter/exit	QTR 2 Enter/Exit	QTR 3 Enter/Exit	QTR 4 Enter/Exit	Year Two
Please list the start and end dates of training					
Badges from Incumbent worker from employers	20/10	20/10	20/10	20/10	70/35

WDTF 2017 Industry Sector Grant Application

Badges from High School	0/0	0/0	10/5	0/0	10/5
Students (current or dropped					
out)					
Badges from career change	0	0	0	0	10/5
Total:	20/10	20/10	30/15	20/10	90/45
2 years of badges attempted/					180/90
completed					

- The assumption is that it will take 5 weeks (8 hours per week for a total of 40 hours) to train, test and complete one badge. The 6th week is reserved for testing. A person may be able to complete the badge earlier, in which case they could start another badge or choose to not attend the rest of their sessions.
- The Workforce Development department will be able to offer a "boot camp" type session. This would mean that for one week (40 hours) our instructor would go on site and train and test 10 employees on one badge. We are testing this delivery method in June of 2018.
- We expect that in the second year, when we demonstrate the badge to work program, that students will come wanting to change careers.

TOTAL PROJECT OUTCOMES

Grant objectives must have measurable results on an individual participant level. Employees or job candidates should learn new skills that were not previously available and gain enhanced skills that allow them to achieve to a higher earning level.

Enter total outcomes numbers anticipated during the 24-month length of the grant.

For current employees (incumbent workers) of the project's business partners:

Number of incumbent workers who receive classroom training	180
Number of incumbent workers who complete classroom training	140
Number of incumbent workers who receive structured OJT	0
Number of incumbent workers who completed structured OJT	0
Average wage prior to training/average wage after training	\$12.68/\$17.24
Number attaining recognized credential/skill badge*	90

For other individuals (not currently employed by the consortium):

40
30
30
\$15
30

*Skill badging is a new state project to provide workers with a recognized badge for attainment of a specific job skill through structured classroom training or through on the job learning. These skill badges will eventually be recognized by employers and transferrable between post-secondary training institutions to improve career ladders for workers.

CONSORTIUM'S OUTCOMES

Each industry consortium partner is expected to value this training to meet their workforce needs. For each partner, provide the hiring/incumbent training/wage increase numbers anticipated at their worksite.

NAME OF INDUSTRY PARTNER: __Premier Technology

For current employees (incumbent workers) of the project's business partners:

Number of incumbent workers who receive classroom training	100
Number of incumbent workers who complete classroom training	80
Number of incumbent workers who receive structured OJT	
Number of incumbent workers who completed structured OJT	
Average wage prior to training/average wage after training	\$13/\$18
Number attaining recognized credential/skill badge*	50

NAME OF INDUSTRY PARTNER: _American Fabrication

For current employees (incumbent workers) of the project's business partners:

Number of incumbent workers who receive classroom training	50
Number of incumbent workers who complete classroom training	30
Number of incumbent workers who receive structured OJT	
Number of incumbent workers who completed structured OJT	
Average wage prior to training/average wage after training	\$12/\$18
Number attaining recognized credential/skill badge*	20

NAME OF INDUSTRY PARTNER: _____Idaho Steel Products

For current employees (incumbent workers) of the project's business partners:

Number of incumbent workers who receive classroom training	24
Number of incumbent workers who complete classroom training	18
Number of incumbent workers who receive structured OJT	
Number of incumbent workers who completed structured OJT	
Average wage prior to training/average wage after training	\$14/\$16
Number attaining recognized credential/skill badge*	12

NAME OF INDUSTRY PARTNER: ____Cives Steel Products_

For current employees (incumbent workers) of the project's business partner	For current emplo	vees (incumbent	workers) of the	project's business	partners:
--	-------------------	-----------------	-----------------	--------------------	-----------

Number of incumbent workers who receive classroom training	20
10 open positions for materials handlers, would turn to welder \$13, have 80 wants	
to grow to 100 welders. MIG training is priority	
Number of incumbent workers who complete classroom training	10
Number of incumbent workers who receive structured OJT	
Number of incumbent workers who completed structured OJT	
Average wage prior to training/average wage after training	\$12/14
Number attaining recognized credential/skill badge*	5

NAME OF INDUSTRY PARTNER: _____Idaho National Laboratory_

For current employees (incumbent workers) of the project's business partners:

2
2
\$15/\$18
2

NAME OF INDUSTRY PARTNER: _____Spudnik______

For current employees (incumbent workers) of the project's business partners:

Number of incumbent workers who receive classroom training	20	
Number of incumbent workers who complete classroom training	20	
Number of incumbent workers who receive structured OJT		
Number of incumbent workers who completed structured OJT		
Average wage prior to training/average wage after training	\$14.50/\$16.50	
Number attaining recognized credential/skill badge*	15	

Insert additional sections if the proposal has more than three partners in its industry consortium.

BUDGET & REQUIRED MATCH

Complete the WDTF Sector/Micro Grant budget form at this link, which requires the following:

- 1. The application must provide a detailed budget identifying the direct personnel costs, fringe benefits, equipment cost, facility costs and other identified costs to deliver this training. For each line item on the budget, provide the budget amount, a detailed narrative describing how the line item amount was determined, the necessity of the item to develop/deliver training, and whether the cost is supported by grant funds or partner match (cash or in-kind).
- 2. <u>Administrative Costs</u> covered by the WDTF resources cannot exceed 5% of grant request. Administrative costs will calculate automatically. If requesting administrative costs as part of the grant, enter Y in the QTY column (F6) on the Administrative Costs line.
- 3. The industry consortium, together with its training provider partner, must provide resources that directly support the proposed training at one of the following rates:
 - o 25% cash match of the total grant request, or
 - o 100% in-kind match equal to the total grant request, or
 - o A proportionate combination of cash and in-kind match.

CEI Welding WDTF Sector Grant Budget Summary

	WDTF Cost per Participant	\$	1,388.89
WDTF Grant Request	\$250,000.00		
Personnel/Salary	\$91,200.00	36.48%	
Fringe Benefits	\$7,920.00	3.17%	
Travel	\$14,485.50	5.79%	
Equipment	\$103,989.74	41.60%	
Training Materials	\$18,000.00	7.20%	
Contracted Services	\$2,500.00	1.00%	
Other			
Admin Costs	\$ 11,904.76	4.76%	
Partnership Cash	\$ 58,000.00		23.20%
Personnel/Salary			
Fringe Benefits			
Travel			
Equipment			
Training Materials			
Contracted Services			
Other	\$ 58,000.00	23.20%	
Partnership In-Kind	\$ 20,400.00		8.16%
Personnel/Salary			
Fringe Benefits			
Travel			
Equipment			
Training Materials			
Contracted Services	\$8,400.00	3.36%	
Other	\$12,000.00	4.80%	
Total Project	\$328,400.00		

ASSURANCES

The following assurances will be incorporated as applicable into any award contract

The applicant will comply with all employment-related federal and state laws, particularly child labor laws related to use of equipment and limitations within specific occupations/industries as they pertain to the training reflected in this application. The lead applicant will assist the Department of Labor in educating all project partners regarding pertinent employment-related laws. See Idaho labor laws at: http://labor.idaho.gov/dnn//idl/Businesses/IdahoLaborLaws.aspx

If training occurs at a worksite, an hourly wage rate and worker's compensation must be provided unless exemption is approved by the Department of Labor's Idaho's Wage and Hour Division.

The applicant recognizes that each training provider must submit documentation to the Idaho Department of Labor that provides proof of liability insurance or worker's compensation if training at the worksite, as required by law prior to finalizing a grant award contract.

To ensure fair and allowable expenditure of State funds, the awardee and/or the project's grant recipient must comply with its entity's established procurement policies and processes when contracting for private training providers or when purchasing equipment. All records will be maintained for a minimum of three (3) years.

The applicant will assure it will comply fully with applicable nondiscrimination and equal opportunity laws and statutes which prohibit discrimination against all individuals in the United States on the basis of race, color, religion, sex, national origin, age, disability, political affiliation, or belief.

The applicant will adhere to the financial tracking and reporting requirements of a cost-reimbursement grant with the State of Idaho. The applicant will be responsible for retention of all expenditure records as delineated in a written contract with the Idaho Department of Labor and Idaho Department of Commerce.

Industry Sector Grant applicants are required to complete the necessary reporting forms due on the 10th day at the end of each quarter. The applicants will submit the quarterly reimbursement request as delineated in a written agreement with Idaho Department of Labor, and Idaho Department of Commerce. The applicant will be responsible for the retention of expenditure records as delineated in the contract in addition to completing all the following cost-reimbursement required reporting forms.

- 1. Industry Sector Quarterly Report
- 2. WDTF01-02 Request for Reimbursement Form
- 3. Industry Sector Grant Program Cost
- 4. Industry Sector Participant (Student) Data Form including entire 9-digit Social Security Number.
- 5. Industry Sector Training Timeline

Failure to provide all completed forms can result in delayed payment or no payment until all necessary information is provided.

Signature of Lead Applicant	 Date	

Appendix A

CEI WELDING BADGE STANDARDS

CONTENT STANDARD 1.0: IDENTIFY LAB ORGANIZATION AND SAFETY PROCEDURES This content standard aligns with the Idaho Welding Technology Program standard 1.0

Performance Standard 1.1: Demonstrate General Lab Safety Rules and Procedures
This performance standard aligns with the SkillStack badge labeled: Lab Rules & Procedures

- 1.1.1 Describe general shop safety rules and procedures (i.e., safety test).
- 1.1.2 Describe OSHA in workplace safety.
- 1.1.3 Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities (i.e., personal protection equipment PE).
- 1.1.4 Operate lab equipment according to safety guidelines.
- 1.1.5 Identify and use proper lifting procedures and proper use of support equipment (i.e., rigging, chains, straps, cables).
- 1.1.6 Utilize proper ventilation procedures for working within the lab/shop area.
- 1.1.7 Identify marked safety areas.
- 1.1.8 Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment.
- 1.1.9 Identify the location and use of eye wash stations.
- 1.1.10 Identify the location of the posted evacuation routes.
- 1.1.11 Identify and wear appropriate clothing for lab/shop activities.
- 1.1.12 Secure hair and jewelry for lab/shop activities.
- 1.1.13 Demonstrate knowledge of the safety aspects of high voltage circuits.
- 1.1.14 Locate and interpret safety data sheets (SDS).
- 1.1.15 Perform housekeeping duties.
- 1.1.16 Follow verbal instructions to complete work assignments.
- 1.1.17 Follow written instructions to complete work assignments.
- 1.1.18 Identify requirements for Hot Work Permits.
- 1.1.19 Identify what constitutes a confined space.

Performance Standard 1.2: Identify and Utilize Hand Tools

This performance standard aligns with the SkillStack badge labeled: Hand Tools & Equipment

- 1.2.1 Identify hand tools and their appropriate usage.
- 1.2.2 Identify standard and metric designation.
- 1.2.3 Demonstrate safe handling and use of appropriate tools.
- 1.2.4 Demonstrate proper cleaning, storage, and maintenance of tools.

Performance Standard 1.3: Identify and Utilize Power Tools and Equipment

This performance standard aligns with the SkillStack badge labeled: Power Tools & Equipment

- 1.3.1 Identify power tools and equipment, and their appropriate usage.
- 1.3.2 Demonstrate safe handling and use of appropriate power tools and equipment.
- 1.3.3 Demonstrate proper cleaning, storage, and maintenance of power tools and equipment.

CONTENT STANDARD 2.0: APPLY FUNDAMENTAL PRINT READING, MEASUREMENT AND LAYOUT/FIT-UP TECHNIQUES

This content standard aligns with the Idaho Welding Technology Program standard 2.0 and aligns with the SkillStack badge labeled: Blueprint Reading for Welders

Performance Standard 2.1: Demonstrate Print Reading and Sketching Practices

- 2.1.1 Interpret basic elements of a technical drawing (i.e., title block information, dimensions, line types).
- 2.1.2 Identify and explain industry standard welding symbols.
- 2.1.3 Prepare a materials list from a technical drawing (i.e., bill of material).
- 2.1.4 Describe various types of drawings (i.e., part, assembly, pictorial, orthographic, isometric, and schematic).
- 2.1.5 Understand dimensioning, sectional drawings, fasteners, tables, charts, and assembly drawings.
- 2.1.6 Sketch or draw a basic welding drawing.
- 2.1.7 Fabricate parts from a drawing or sketch.

Performance Standard 2.2: Demonstrate Measuring and Scaling Techniques

- 2.2.1 Identify industry standard units of measure.
- 2.2.2 Convert between customary (i.e., SAE, Imperial) and metric systems.
- 2.2.3 Measure and calculate size, area, and volume.
- 2.2.4 Determine and apply the equivalence between fractions and decimals.
- 2.2.5 Identify measuring tools.

Performance Standards 2.3: Utilize Layout Principles and Practices

- 2.3.1 Interpret drawing, sketch or specification information.
- 2.3.2 Prepare work area for layout.
- 2.3.3 Select appropriate materials to complete work assignment.
- 2.3.4 Use layout and marking tools as required.
- 2.3.5 Layout parts using measurement practices.

Performance Standards 2.4: Demonstrate Preparation and Fit-Up Practices

- 2.4.1 Identify and explain job specifications.
- 2.4.2 Use fit-up gauges and measuring devices to check joint fit-up.
- 2.4.3 Identify and explain distortion and how it is controlled.
- 2.4.4 Fit-up joints using plate and pipe fit-up tools.
- 2.4.5 Check for joint misalignment and poor fit-up before and after welding.

CONTENT STANDARD 3.0: IDENTIFY PROPERTIES OF METALS

This content standard aligns with the Idaho Welding Technology Program standard 3.0 and aligns with the SkillStack badge labeled: Welding Theory

Performance Standard 3.1: Identify Material Properties and Science

- 3.1.1 Identify the difference between ferrous and non-ferrous metals.
- 3.1.2 Identify and explain forms and shapes of structural metals.

Performance Standard 3.2: Identify Filler Metals

- 3.2.1 Explain AWS filler metal classifications systems.
- 3.2.2 Identify different types of filler metals.
- 3.2.3 Explain the storage and control of filler metals.

CONTENT STANDARD 4.0: APPLY SHIELDED METAL ARC WELDING (SMAW) TECHNIQUES

This content standard aligns with the Idaho Welding Technology Program standard 4.0 and aligns with the SkillStack badge labeled: SMAW Practical

Performance Standard 4.1: Safety Procedures

- 4.1.1 Identify and explain different types of welding current and polarity.
- 4.1.2 Perform safety inspections of SMAW equipment and accessories.
- 4.1.3 Maintain SMAW equipment and accessories.

Performance Standard 4.2: Produce Welds using SMAW on Carbon Steel

- 4.2.1 Set up for SMAW operations.
- 4.2.2 Operate SMAW equipment.
- 4.2.3 Perform welds in the 1F position.
- 4.2.3 Perform welds in the 2F position.
- 4.2.4 Perform welds in the 3F position.
- 4.2.5 Perform welds in the 4F position.
- 4.2.6 Perform welds in the 1G position.
- 4.2.7 Perform welds in the 2G position.
- 4.2.8 Perform welds in the 3G position.
- 4.2.9 Perform welds in the 4G position.
- 4.2.10 Describe 2G, 5G and 6G welding positions.

CONTENT STANDARD 5.0: APPLY GAS METAL ARC WELDING (GMAW-S, GMAW) TECHNIQUES This content standard aligns with the Idaho Welding Technology Program standard 5.0

Performance Standard 5.1: Utilize Safety Procedures

- 5.1.1 Identify and explain the use of GMAW equipment (i.e., spray transfer, globular, short circuit, and pulse).
- 5.1.2 Perform safety inspections of GMAW equipment and accessories.
- 5.1.3 Maintain GMAW equipment and accessories.
- 5.1.4 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of GMAW equipment.

Performance Standard 5.2: Produce Welds Using GMAW-S on Carbon Steel

- 5.2.1 Set up for GMAW-S operations.
- 5.2.2 Operate GMAW-S equipment.
- 5.2.3 Perform welds in the 1F position.
- 5.2.4 Perform welds in the 2F position.
- 5.2.5 Perform welds in the 3F position.
- 5.2.6 Perform welds in the 4F position.
- 5.2.7 Perform welds in the 1G position.
- 5.2.8 Perform welds in the 2G position.
- 5.2.9 Perform welds in the 3G position.

CONTENT STANDARD 6.0: APPLY FLUX CORED ARC WELDING (FCAW-G) TECHNIQUE

This content standard aligns with the Idaho Welding Technology Program standard 6.0

Performance Standard 6.1: Utilize Safety Procedures

- 6.1.1 Identify and explain the use of FCAW-G equipment).
- 6.1.2 Perform safety inspections of FCAW-G equipment and accessories.
- 6.1.3 Maintain FCAW-G equipment and accessories.
- 6.1.4 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of FCAW-G equipment.

Performance Standard: 6.2: Produce Welds using FCAW-G on Carbon Steel

- **6.2.1** Set up for FCAW-G operations.
- 6.2.2 Operate FCAW-G equipment.
- 6.2.3 Perform welds in the 1F position.
- 6.2.4 Perform welds in the 2F position.
- 6.2.5 Perform welds in the 3F position.
- 6.2.6 Perform welds in the 4F position.
- 6.2.7 Perform welds in the 1G position.
- 6.2.8 Perform welds in the 2G position.
- 6.2.9 Perform welds in the 3G position.

CONTENT STANDARD 7.0: APPLY GAS TUNGSTEN ARC WELDING (GTAW) TECHNIQUES

This content standard aligns with the Idaho Welding Technology Program standard 7.0

Performance Standard 7.1: Utilize Safety Procedures

- 7.1.1 Perform safety inspections of GTAW equipment and accessories.
- 7.1.2 Maintain GTAW equipment and accessories.
- 7.1.3 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of GTAW equipment.

Performance Standard 7.2: Produce Welds using GTAW on Carbon Steel

- 7.2.1 Set up for GTAW operations
- 7.2.2 Operate GTAW equipment.
- 7.2.3 Perform welds in the 1F position.
- 7.2.4 Perform welds in the 2F position
- 7.2.5 Perform welds in the 3F position
- 7.2.6 Perform welds in the 1G position
- 7.2.7 Perform welds in the 2G position.
- 7.2.8 Perform welds in the 3G position.

Performance Standard 7.3: Produce Welds using GTAW on Aluminum

- 7.3.1 Set up for GTAW operations.
- 7.3.2 Operate GTAW equipment.
- 7.3.3 Perform welds in the 1F position.
- 7.3.4 Perform welds in the 2F position.

CONTENT STANDARD 8.0: APPLY THERMAL CUTTING PROCESSES

This content standard aligns with the Idaho Welding Technology Program standard 8.0

Performance Standard 8.1: Demonstrate Oxy-Fuel Gas Cutting (OFC)

- 8.1.1 Perform safety inspections of OFC equipment and accessories.
- 8.1.2 Maintain OFC equipment and accessories.
- 8.1.3 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of OFC equipment.
- 8.1.4 Set up for OFC operations.
- 8.1.5 Operate OFC equipment.
- 8.1.6 Perform straight, square edge cutting operations in the flat position.
- 8.1.7 Perform shape, square edge cutting operations in the flat position.
- 8.1.8 Perform straight, bevel edge cutting operations in the flat position.
- 8.1.9 Perform scarfing and gouging operations to remove base and weld metal, in flat and horizontal positions.

Performance Standard 8.2: Demonstrate Plasma Arc Cutting (PAC) on Carbon Steel and Aluminum

- 8.2.1 Explain the PAC process.
- 8.2.2 Determine the appropriate PAC settings for the various types of metals.
- 8.2.3 Perform safety inspections of PAC equipment and accessories.
- 8.2.4 Maintain PAC equipment and accessories.
- 8.2.5 Set up for PAC operations.
- 8.2.6 Operate PAC equipment.
- 8.2.7 Perform straight, square edge cutting operations in the flat position.
- 8.2.8 Perform shape, square edge cutting operations in the flat position.

Performance Standard 8.3: Demonstrate Manual Air Carbon Arc Cutting (CAC-A)

- 8.3.1 Performs safety inspections of manual CAC-A equipment and accessories.
- 8.3.2 Maintain CAC-A equipment and accessories.
- 8.3.3 Set up manual CAC-A scarfing and gouging operation on carbon steel.
- 8.3.4 Operate manual CAC-A equipment on carbon steel.
- 8.3.5 Perform scarfing and gouging operations to remove base and weld metal in the flat and horizontal positions on carbon steel.

CONTENT STANDARD 9.0: IDENTIFY WELDING CODES, INSPECTIONS, AND TESTING PRINCIPLES This content standard aligns with the Idaho Welding Technology Program standard 9.0

Performance Standard 9.1: Identify Welding Codes, Qualifications and Certifications

- 9.1.1 Identify and explain weld imperfections and their causes.
- 9.1.2 Identify and explain welder qualification tests.
- 9.1.3 Explain the importance of quality workmanship.
- 9.1.4 Identify common destructive testing methods.
- 9.1.5 Perform a visual inspection of fillet welds.

Performance Standard 9.2: Demonstrate Welding Inspection and Testing Principles

- 9.2.1 Define the role of welding inspection/inspector and testing in industry.
- 9.2.2 Examine cut surfaces and edges of prepared base metal parts.
- 9.2.3 Examine tack, root passes, intermediate layers, and completed welds.

CONTENT STANDARD 10.0: APPLY FABRICATION FUNDAMENTALS

This content standard aligns with the Idaho Welding Technology Program standard 10.0

Performance Standard 10.1: Utilize Base Metal Preparation Fundamentals

- 10.1.1 Clean base metal for welding or cutting.
- 10.1.2 Identify and explain joint design.
- 10.1.3 Select the proper joint design based on a welding procedure specification (WPS) or instructor's direction.
- 10.1.4 Mechanically bevel the edge of a mild steel plate (i.e., hand beveller, grinder).
- 10.1.5 Thermally bevel the end of a mild steel plate.

Performance Standard 10.2: Demonstrate Fabrication Techniques

- 10.2.1 Demonstrate proper setup of fabrication area, equipment, and materials.
- 10.2.2 Construct projects in the proper sequence.
- 10.2.3 Properly layout projects from welding prints.
- 10.2.4 Check work for accuracy.

CONTENT STANDARD 11.0: ADVANCED TECHNIQUES

Performance Standard 11.1: Follow Advanced Welding Procedures

- 11.1.1 Demonstrate understanding of complex blueprint reading and welding procedure specifications (WPS)
- 11.1.2 Develop blueprint and welding procedure specification
- 11.1.3 Construct a weldment based on poor drawing. (Minimal Information)

Performance Standard 11.2: Exotic Material Techniques

- 11.2.1 Perform welds on steel, stainless steel, aluminum, titanium, High Nickel, Chromalloy
- 11.2.2 Perform welds on 1" and thicker base material
- 11.2.3 Perform welds on various materials using proper shielding methods
- 11.2.4 Perform brazing and soldering of dissimilar metals

Performance Standard 11.3: Stainless Steel Finishing

- 11.3.1 Bead blast finishing
- 11.3.2 Polishing vertical and horizontal applications
- 11.3.2 Construct food grade stainless steel containers meeting industry standards
- 11.3.3 Perform sanitary welds on stainless steel tubing utilizing purge process to industry standards.

Performance Standard 11.4: Advanced Pipefitting

- 11.4.1 Construct pipe spool that will be installed over a wall and connected on the other side
- 11.4.2 Perform welds on pipe that will go around inside and outside corners forming an S shape
- 11.4.3 Perform welds on odd joint designs with various angles
- 11.4.4 Configure and complete a weld using an orbital welding system

Performance Standard 11.5: Consistency

- 11.5.1 Choose from the available welding processes to create 5 of the exact same deliverables
- 11.5.2 Perform welds in the 6G position laying on the floor and from a ladder
- 11.5.3 Build frame utilizing angle iron or square tubing. Finished product will be evaluated for being square and meeting all specified measurements.

Appendix B: Detailed training and testing schedule for the 24 months of the grant:

2018	2019		2020	
September	January	July	January	July
u Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr
1	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4	1 2 3
2 3 4 5 6 7 8	6 7 8 9 10 11 12	7 8 9 10 11 12 13	5 6 7 8 9 10 11	5 6 7 8 9 10
9 10 11 12 13 14 15	13 14 15 16 17 18 19	14 15 16 17 18 19 20	12 13 14 15 16 17 18	12 13 14 15 16 17
16 17 18 19 20 21 22	20 21 22 23 24 25 26	21 22 23 24 25 26 27	19 20 21 22 23 24 25	19 20 21 22 23 24
23 24 25 26 27 28 29	27 28 29 30 31	28 29 30 31	26 27 28 29 30 31	26 27 28 29 30 31
30				
October	February	August	February	August
u Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr
1 2 3 4 5 6	1 2	1 2 3	1	
7 8 9 10 11 12 13	3 4 5 6 7 8 9	4 5 6 7 8 9 10	2 3 4 5 6 7 8	2 3 4 5 6 7
14 15 16 17 18 19 <mark>20</mark>	10 11 12 13 14 15 16	11 12 13 14 15 16 17	9 10 11 12 13 14 15	9 10 11 12 13 14
21 22 23 24 25 26 27	17 18 19 20 21 22 23	18 19 20 21 22 23 24	16 17 18 19 20 21 22	16 17 18 19 20 21
28 29 30 31	24 25 26 27 28	25 26 27 28 29 30 31	23 24 25 26 27 28 29	23 24 25 26 27 28
				30 31
November	March	September	March	September
u Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr
1 2 3	1 2	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4
4 5 6 7 8 9 10	3 4 5 6 7 8 9	8 9 10 11 12 13 14	8 9 10 11 12 13 14	6 7 8 9 10 11
11 12 13 14 15 16 17	10 11 12 13 14 15 16	15 16 17 18 19 20 21	15 16 17 18 19 20 21	13 14 15 16 17 18
18 19 20 21 22 23 24	17 18 19 20 21 22 23	22 23 24 25 26 27 28	22 23 24 25 26 27 28	20 21 22 23 24 25
25 26 27 28 29 30	24 25 26 27 28 29 30	29 30	29 30 31	27 28 29 30
	31			
December	April	October	April	
u Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	
1	1 2 3 4 5 6	1 2 3 4 5	1 2 3 4	
2 3 4 5 6 7 8	7 8 9 10 11 12 13	6 7 8 9 10 11 12	5 6 7 8 9 10 11	
9 10 11 12 13 14 15	14 15 16 17 18 19 20	13 14 15 16 17 18 19	12 13 14 15 16 17 18	
16 17 18 19 20 21 22	21 22 23 24 25 26 27	20 21 22 23 24 25 26	19 20 21 22 23 24 25	
23 24 25 26 27 28 29 30 31	28 29 30	27 28 29 30 31	26 27 28 29 30	
30 31				
	May	November	May	
	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	
	1 2 3 4	1 2	1 2	
	5 6 7 8 9 10 11	3 4 5 6 7 8 9	3 4 5 6 7 8 9	
	12 13 14 15 16 17 18	10 11 12 13 14 15 16	10 11 12 13 14 15 16	
	19 20 21 22 23 24 25 26 27 28 29 30 31	17 18 19 20 21 22 23 24 25 26 27 28 29 30	17 18 19 20 21 22 23 24 25 26 27 28 29 30	
	20 2/ 28 29 30 31	24 25 26 27 28 29 30	24 25 26 27 28 29 30 31	

Tu We Th Fr

3

10

4 5

6

11 12 13 14

18 19 20 21

25 26 27 28

Su Mo

1

15 16 17

22 23 24

29 30 31

Su Mo Tu We Th Fr Sa

10 11 17 18

24 25

16

23

30

6

19 20 21

26 27 28

12 13 14 15

Su Mo Tu We Th Fr

2

3 4 5

10 11 12

17 18 19

24 25 26

1

14 15 16 21 22 23

28 29 30